

**Mission:** STS-78 on Columbia.

**Launch date, time:** June 20, 10:49 a.m. from Launch Pad 39B.

**Primary payload:** Life and Microgravity Spacelab (LMS).

**Landing date, time:** Columbia touched down at Runway 33 of the Shuttle Landing Facility at 8:36 a.m. on July 7, 1996. The nearly 17-day-long flight made STS-78 the longest Shuttle mission to date.



**Mission:** STS-79 on Atlantis.

**Launch date, time:** Mid-September from Launch Pad 39A.

**Mission Synopsis:** STS-79 is the fourth in a series of NASA docking missions to the Russian Mir Space Station, leading to the construction and operation of the International Space Station. As the first flight of the Spacehab Double Module, (see photo, page 7) STS-79 encompasses research, test and evaluation of ISS as well as logistics resupply for the Mir Space Station. STS-79 is also the first NASA/Mir American crew member exchange, with astronaut John Blaha replacing Shannon Lucid aboard the Mir.

**Landing date, time:** To be determined.

# Spaceport News

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John F. Kennedy Space Center

## Bertha sends Atlantis to VAB, boosters keep her there

After the threat from Hurricane Bertha forced the rollback of the Shuttle Atlantis to the Vehicle Assembly Building on July 10, mission managers opted to keep her there to replace her solid rocket boosters.

The decision means the fourth Shuttle-Mir docking

flight, Mission STS-79, will be delayed until around mid-September. It also means that U.S. astronaut Shannon Lucid is on her way to setting a new record for U.S. long-duration space-flight that will stand for some time to come.

Atlantis' motors are being

replaced because technicians disassembling the motors from the previous flight, STS-78, observed that hot gas had seeped into J-joints in the field joints of the motors.

The most probable cause for

**(See STS-79, Page 8)**

## KSC rolls out welcome for Olympic flame



KSC SHUTTLE Operations Manager Loren Shriver, right, transfers the Olympic flame to KSC runner Joanne Maceo's torch at the top of Launch Pad 39A after he carried the Olympic torch to the top of the pad as his contribution to the torch relay effort. Jon Granston of the Atlanta Committee for the Olympic Games (center) witnesses the exchange. Maceo then carried her lit torch down the concrete hard stand of the pad to pass the flame to another member of the KSC runner team.

Kennedy Space Center welcomed the Olympic flame July 7 in a big way. In addition to the landing of Columbia, which occurred on time at 8:36 a.m., spectators and media were also offered an



Atlanta 1996

unforgettable view of the flame passing in front of the Space Shuttle for STS-79.

As the flame made its way to the Visitor Center, a throng of spectators heralded its arrival with flag waving and cheers. The Melbourne Municipal Band and Challenger Fife and Drum Corps provided patriotic music. And a recap of the day's activities and the torch's journey across the United States played on a jumbo video wall.

NASA Administrator Dan Goldin and Center Director

**(See TORCH, Page 3)**



THE NASA KENNEDY Management Association recently named new officers for 1996-97. The officers, installed during a banquet June 28 at KARS II are, from the left, Bob Geron, Mission Assurance, treasurer; Vanessa Stromer, Shuttle Processing, secretary; and Catherine Alexander, Installation Operations, president. Not pictured is Miguel Rodriguez, Payloads Processing, vice president.

### Space Week events planned at Visitor Center

The Kennedy Space Center Visitor Center has a number of events underway to celebrate Space Week, Tuesday, July 16 through Tuesday, July 23.

Space Week is a nationally recognized period to honor the men and women whose efforts have contributed to America's achievements in space. At press time activities were set to begin July 16 with a talk and book signing by Buzz Aldrin, the second man to walk on the moon, and the grand opening of the Visitor Center's "Mission to Mars" interactive exhibit com-

memorating the 20th anniversary of the Viking probe. That exhibit will be on display through January 1997.

Upcoming features include an exclusive viewing of a commemorative film on Apollo 11 to be shown throughout the day on July 20, a public briefing and poster signing by astronaut/artist Alan Bean on July 22 from 10 a.m. to noon and 1-3 p.m.; and an appearance by Barbara Eden, star of the television series "I Dream of Jeannie" on July 23 from 11:30 a.m. to 1:30 p.m. The activities are all free.



SIX STUDENTS participating in the KSC/UCF Space Scholars Program and Science and Engineering Scholars Program recently assisted with a presentation at the University of Central Florida on preparing high school sophomores, juniors and seniors for college. They are, from the left, Arthur McClung, a math major at Morehouse College in Atlanta; Summer Weisburg, a computer engineering major at the University of Central Florida; Monica Rivas, an industrial engineering major at the University of Central Florida; Mimmie Lui, a civil engineering major at the University of New Mexico; Shalot Armstrong, an electrical engineering major at the University of Texas; and Brian Baron, a math major at Morehouse. The scholars programs target minority students who have traditionally been under-represented in engineering and science career fields. The objective is to provide trained employees for permanent employment within the U.S. workforce. The students must maintain a 3.0 GPA and are awarded with a four-year scholarship, a yearly allowance and ten weeks of summer employment at KSC. The programs are administered by the Equal Opportunity Office.

### Brevard crisis line seeks volunteers

Kennedy Space Center employees have an opportunity to contribute directly to the community by volunteering to assist Crisis Services of Brevard, Inc. in responding to calls for help.

The telephone counseling service provides confidential 24-hour-a-day service to people who call in with any type of problem.

Opportunities are available for trained and untrained positions as crisis line volunteers, who provide 24-hour-a-day assistance to callers; sunshine service volunteers

who offer telephone outreach and reassurance to isolated or homebound elderly clients; data entry assistants, who assist in entering call data and community resource data into a computer system; and fund-raising, special projects or administrative assistants who help with events and projects.

Time commitments vary depending upon the area of service. For more information, contact Linda Lawrence, program director, at 631-9290. Crisis Services of Brevard, Inc. is a United Way agency.



JUDY CASPER worked in sports information during the Olympic Trials last month.

### KSC employees volunteer at Olympics

Judy Casper, branch manager of public relations for EG&G Florida, Inc., and Klaus Staefe, who works in the Installation Operations Directorate, are volunteering their sports-related experience to the Olympics.

Casper, who has an extensive background in sports administration, will be working with representatives of the Interna-

tional Amateur Athletics Association, the official governing body for track and field competition, for the duration of the Games, July 22 through Aug. 4.

Staefe, who has officiated at the international level, has been designated as the officials coordinator for all soccer games played in Orlando. Staefe also officiated at the World Cup in Orlando in 1994.



# Warm crowds greet torch along road through KSC

## TORCH...

*(Continued from Page 1)*

Jay Honeycutt were on hand to welcome the torch as were STS-78 Commander Tom Henricks and Pilot Kevin Kregel, who presented a symbolic torch that was flown on that mission to a representative from the Atlanta Committee for the Olympic Games.

Hugh Harris, director of Public Affairs, acknowledged each of the 20 runners who carried the torch through Kennedy Space Center before signaling Jane Hodges, a Public Affairs employee, to light her torch from a cauldron holding the flame, and carry it forward on its journey to Atlanta and the Games.

TOP LEFT: KSC runner Eric Oulette, accompanied by an Atlanta Committee for the Olympic Games escort, proudly carries the torch down the Saturn Causeway on the way to Launch Pad 39A.

TOP RIGHT: Marty Winkel savors the cheers of the crowd as he delivers the torch to the KSC Visitor Center.

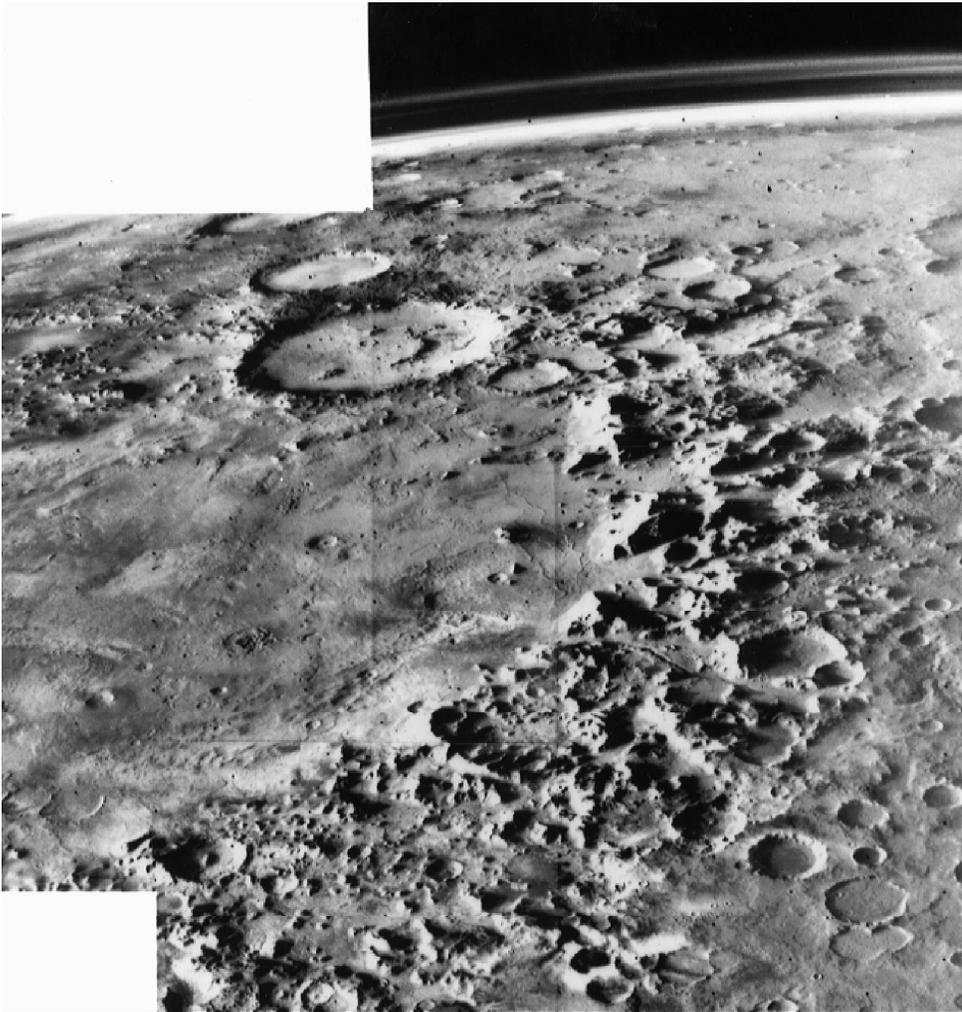
CENTER: Loren Shriver pauses in front of the Space Shuttle Atlantis after receiving the flame at Launch Pad 39A.

BELOW LEFT: STS-78 Pilot Kevin Kregel, NASA Administrator Dan Goldin, Center Director Jay Honeycutt and STS-78 Commander Tom Henricks stand with the symbolic torch the STS-78 crew carried aboard that mission.

BELOW RIGHT: Jane Hodges lights her torch from a cauldron where the flame was held during ceremonies at the Visitor Center.



# Mars probes build on past



AN OBLIQUE view of Mars, which captures what scientists jokingly refer to as the "smiley face," was obtained from 12,000 miles (19,000 kilometers) away on July 11, 1976, by one of the Viking Orbiter 1's two TV cameras. This photo is actually a composite of four frames taken through a red filter about three hours before the spacecraft made its daily pass over the landing site. With the horizon to the right, north is toward upper left.

**T**wenty years after the landing of the Viking Orbiter on Mars, plans are underway for a decade of exploratory missions to the Red Planet.

On Nov. 6, NASA and the Jet Propulsion Laboratory (JPL) plan to begin the effort with the launch of Mars Global Surveyor on a Delta II rocket from Cape Canaveral Air Station (CCAS) Complex 17A. The Surveyor will travel hundreds of millions of kilometers to carry out an extensive study of the planet using its suite of sophisticated remote-sensing instruments.

A month later, on Dec. 2, the Mars Pathfinder is scheduled to launch on a Delta Rocket from CCAS Complex 17B.

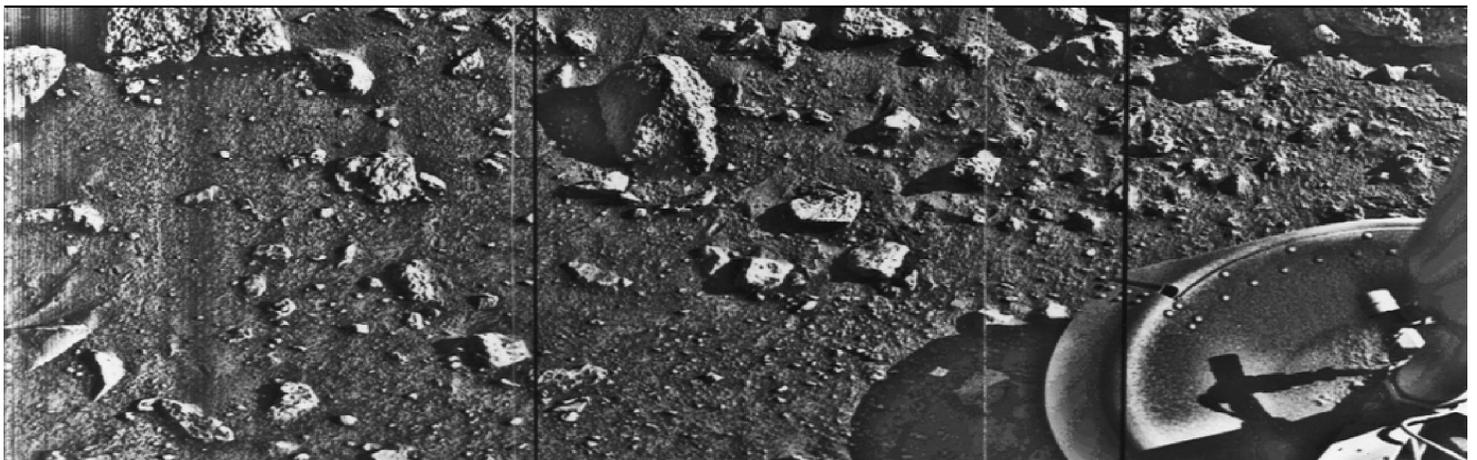
Pathfinder will continue the work of the Viking missions, the first of which landed on the Martian surface on July 15, 1976. Pathfinder's lander will release the first autonomous rover ever used to explore the surface of another planet.

The two projects begin a series of launches scheduled to occur every two years for the next decade.

By studying Mars, the most likely planet for future human expeditions, scientists hope to better understand the formation and evolution of Earth and the inner solar system.

Wayne Lee, mission planner for Mars operations at JPL, presented a briefing for KSC employees on July 8, highlighting the Surveyor and Pathfinder missions and sharing his insight on the development of the probes.

He also talked about the history of Mars exploration these missions are building on.



THIS IS THE first photograph ever taken on the surface of Mars. It was obtained by Viking 1 just minutes after the spacecraft landed on July 20, 1976. The image shows rocks and finely granulated material -- sand or dust. The large rock in the center is about four inches (10 centimeters) across.